



Forest & Trees

Strengthening policy & practice to meet the needs of forest & tree dependent people, & sustain a healthy environment for all

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Forest, Trees & People at Risk

- Deforestation is one of the most significant threats to global environmental integrity
- Under-developed tree crop and forest-derived enterprises leave farmers more impoverished and limit diversification options
- Lack of recognition, appreciation and investment in tree- and forest-based food safety nets leaves the hungry more vulnerable

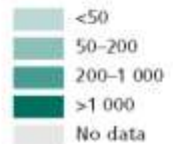
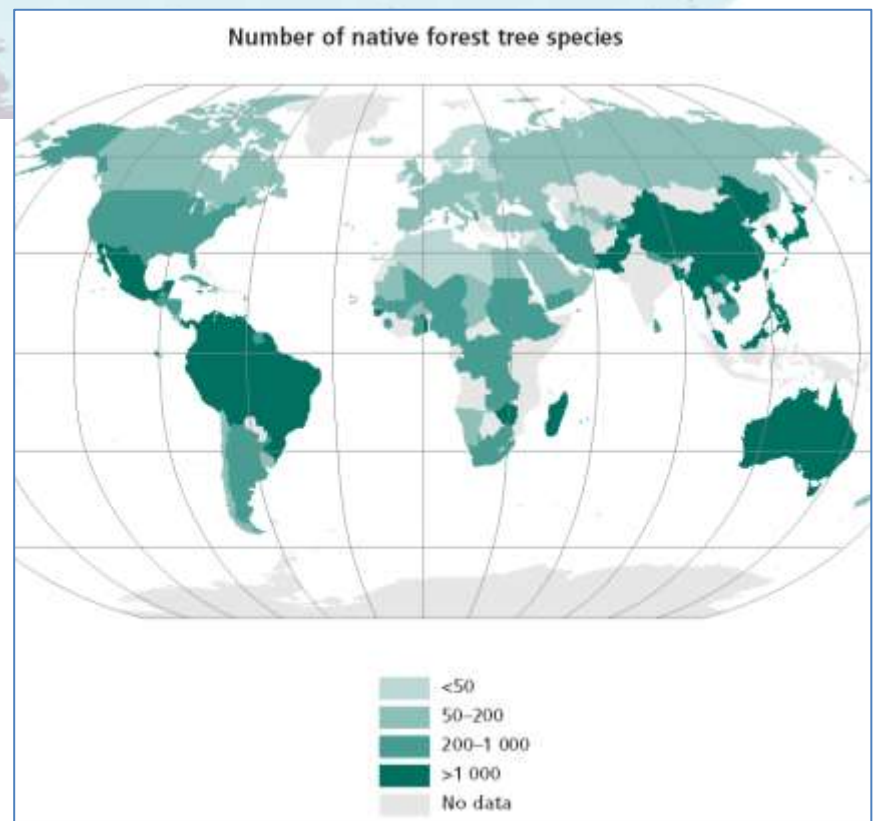
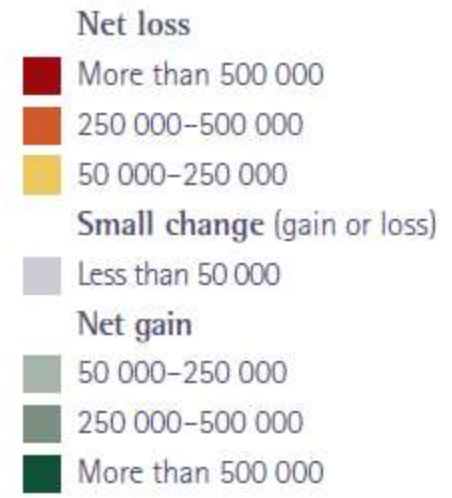
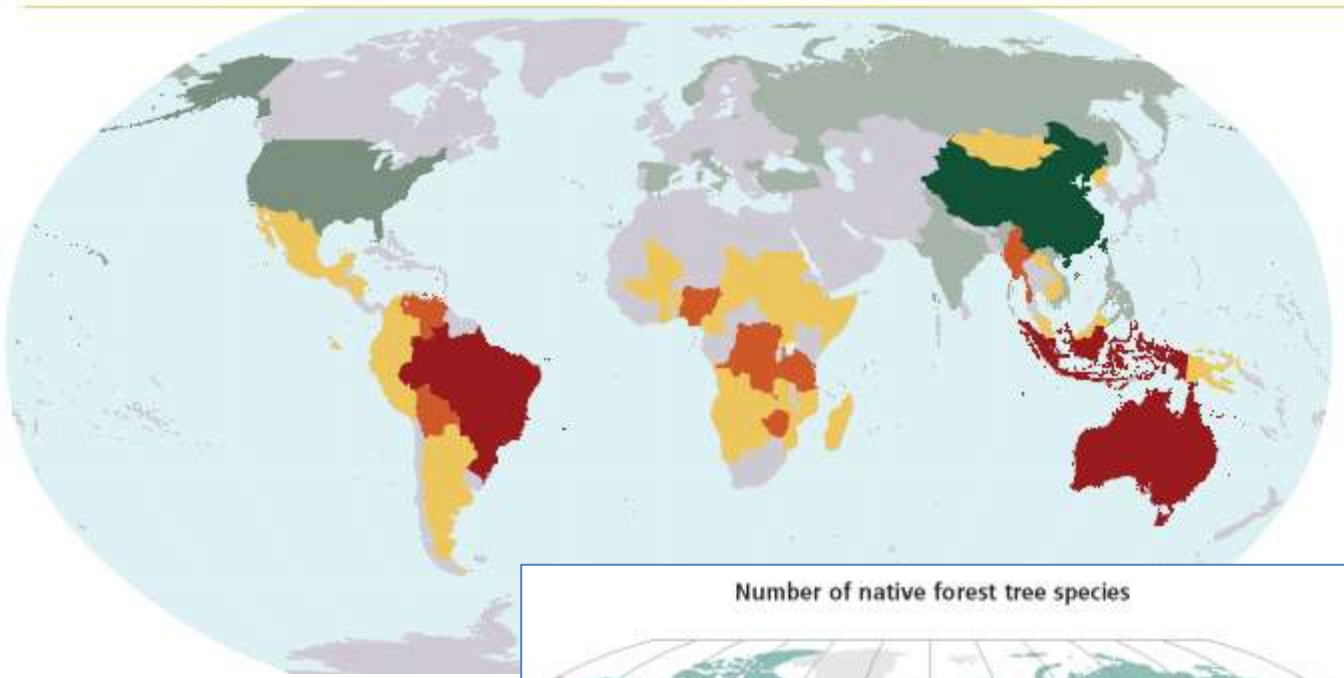




A Perfect Storm

- ca.13 million ha of forest lost annually due to growing human needs for food, fodder, fiber & energy
- Forest and tree loss responsible for up to 20% of greenhouse gas emissions
- Biodiversity loss: e.g., 7000 tree species threatened – 1000s of which provide benefits to people

Net change in forest area by country, 2005–2010 (ha/year)



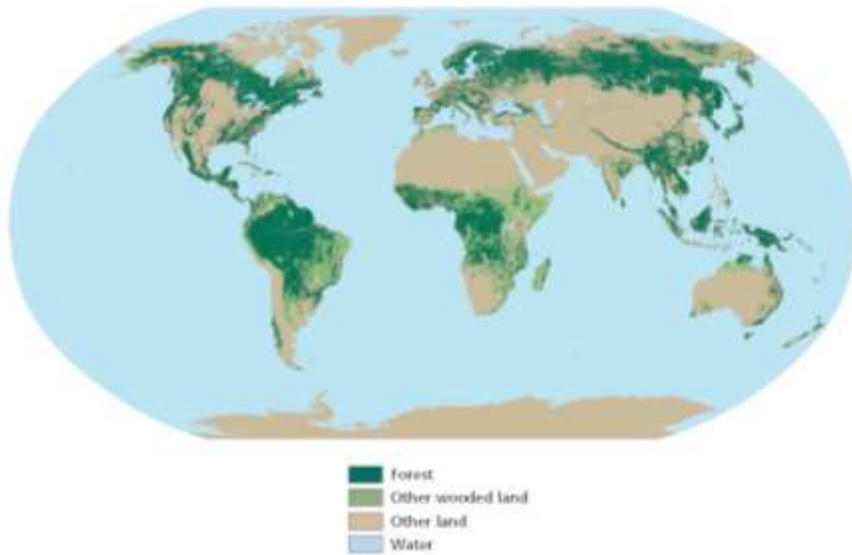
Why forest & trees matter

- Provide income for 1 billion poor people
- Forests:
 - 350 million people rely on them for basic needs
 - Underpin cultures, provide recreation
 - 31% of the world's land
 - 80% of terrestrial biodiversity
 - Ecosystem services worth billions of US\$ per year
 - Thousands of tree species – potential crops, genes & opportunities for the poor
- 50% of the world's agricultural land has at least 10% tree cover
- US\$12.6 billion/yr trade in tree products drives economic growth & provides decent work across the developing world
- Forests & trees mitigate climate change & help people adapt to a changing climate

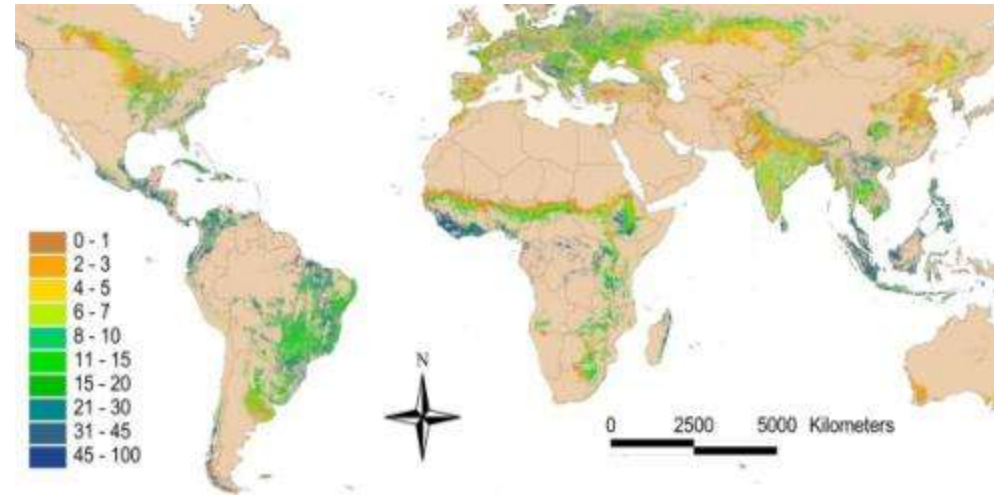


Forests & trees are integral to the multiuse landscapes which sustain rural poor across the developing world

Global Map of Forests



% tree canopy cover on agricultural land - 2001





Risks to forest and tree reliant people

- Loss to rural livelihoods from unbalanced land-use change
- Inequitable access to natural resources
- Perverse incentives
- Poor “unfriendly” forest & tree product markets
- Loss & degradation of ecosystem services

The world's response to date

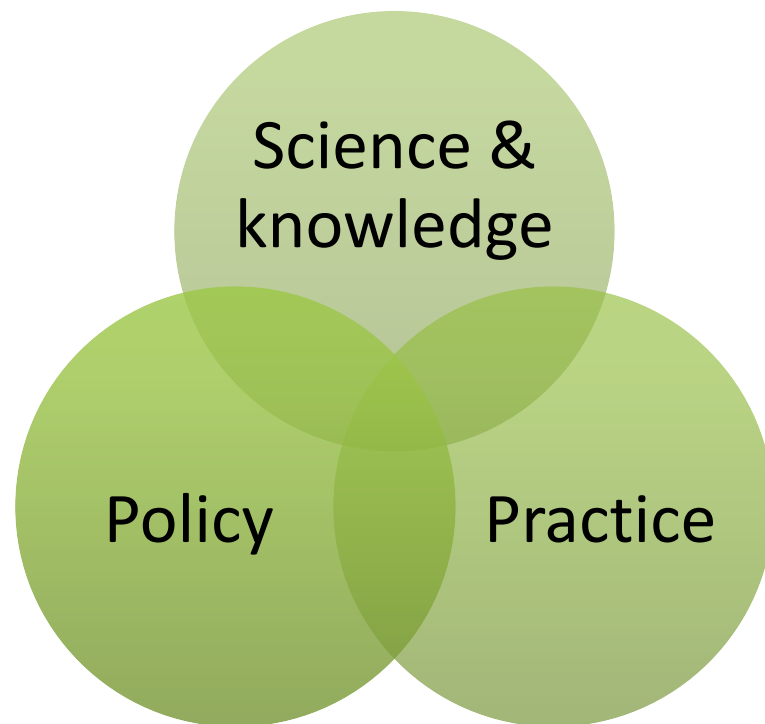
- International mechanisms:
 - UNFCCC & REDD+
 - Conventions on Biodiversity & Combating Desertification
 - UN Forum on Forests
 - FAO Commission on Genetic Resources
- Vast network of civil society & community-based organizations
- Private sector initiatives
 - Forest Certification (FSC)
 - Payment for Ecosystem Services (PES)



The Challenge

- I. Improve livelihoods with the help of forests, agroforests, trees & their genetic resources
- II. Maintain forest goods & services across multifunctional & dynamic landscapes
- III. Realize potential of forests & trees to mitigate & adapt to climate change





I. Improving livelihoods from forests, agroforests, trees & their genetic resources

- Research themes: e.g.,
 - Develop tools & policies to support & sustain small-scale enterprise
 - Generate knowledge to enhance domestication & breeding, as well as sustainable commercialization of forest & agroforestry products



Illustrative outcomes

- Adoption of new approaches to enhance productivity & profitability of forestry & agroforestry systems
- Reduced barriers to income from forests & trees for the poor
- Improved & more effective governance relevant to forest resources, rights and tenure
- Increased value and use of tree genetic diversity
- Rewards for environmental services benefitting the rural poor
- Increased environmental sustainability and biodiversity conservation

Illustrative Impact Pathway – Tree Crop Development in Cocoa

Res Outputs

Identify higher yielding and pest resistant clones

Compatible cocoa diversification options developed

Reliable method to multiply cocoa clonally

Best practices for cocoa system/tree management

Farmer perspectives, effect on women, incentive measures understood

Policy barriers investigated and options formulated

Dev Outputs

Germplasm multiplication blocks established

Demonstrations established

Extension materials produced

Policy dialogues

Res Outcomes

Improved planting available

Training and extension events held

Progressive cocoa certification operational

Formation of better producer associations

Cocoa policies reformed

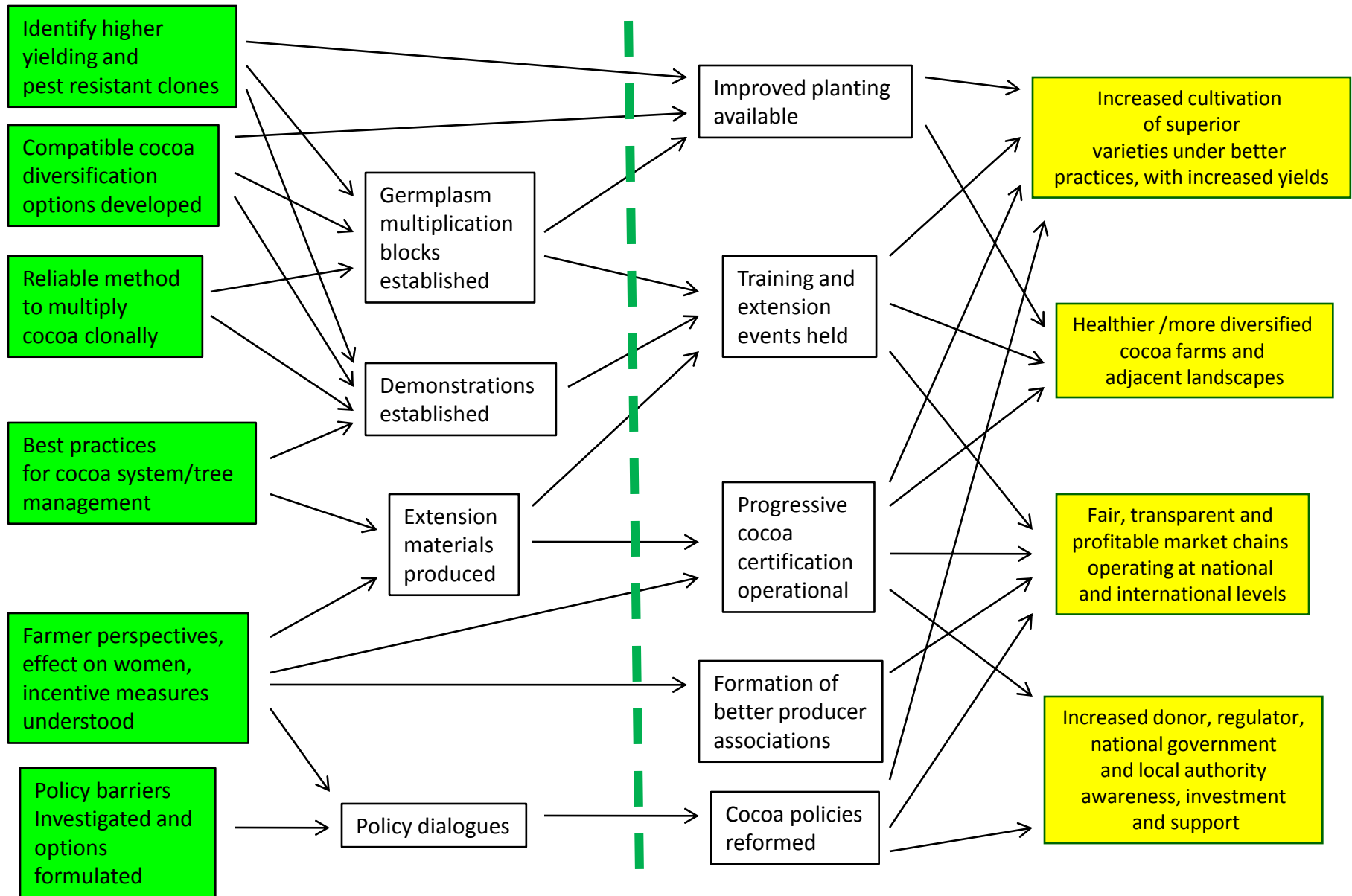
Dev Outcomes

Increased cultivation of superior varieties under better practices, with increased yields

Healthier /more diversified cocoa farms and adjacent landscapes

Fair, transparent and profitable market chains operating at national and international levels

Increased donor, regulator, national government and local authority awareness, investment and support



Illustrative linkages & partners

- Research: e.g., Forum for Agricultural Research in Africa, sub-regional research organizations (e.g. ASARECA, CORAF & SAARD), Universities, NARS, ARIS
- Capacity building: Regional Community Forestry Training Center, CATIE
- Marketing and private sector partnerships: Unilever, Mars Inc, Syngenta



Links to other thematic work areas

- Theme 2: Policies, institutions & markets for enabling agricultural incomes for the poor
 - Policies & investments
 - Value chains
 - Enabling institutions & governance



II. Maintaining forest goods & services in multifunctional & dynamic landscapes

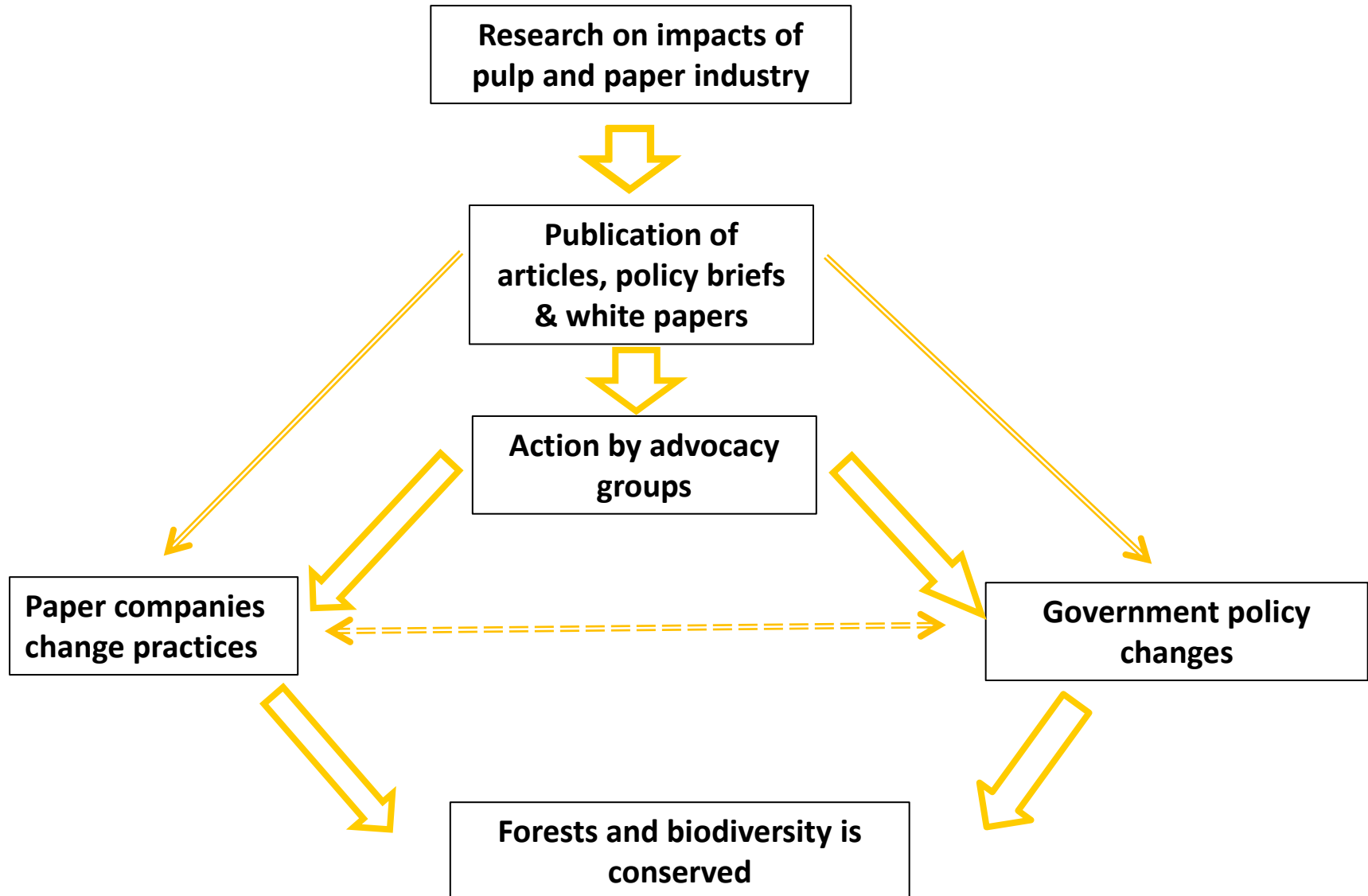
- Research themes:
 - Identify solutions spanning genes to landscapes, to inform policies & practices that affect forests & trees, & the communities that depend on them
 - Develop tools to monitor & conserve ecosystem services, including carbon sequestration & biodiversity



Illustrative outcomes

- New approaches adopted that enhance sustainable & profitable forestry that benefits poor people
- Biodiversity conserved for present & future generations
- Ecosystem services sustained – equitable distribution of payments
- Private sector norms enhanced
- Governance & policy for conservation & use enhanced

Illustrative impact pathway to maintaining forest goods and services



Illustrative linkages & partners

- Research: e.g., International Union of Forest Research Organizations (IUFRO), Amazon Initiative, NARS, ARIS
- Capacity building: Centro Agronómico Tropical de Investigación y Enseñanza (CATIE)
- International and regional networks: African Forest Forum, International Tropical Timber Organization (ITTO)
- Forest product industry and certification bodies: Forest Stewardship Council
- Intergovernmental Platform on Biodiversity & Ecosystem Services



Links to other thematic work areas

- Theme 5: Water, Land & Ecosystems
 - Research & policy for forest & tree sourced ecosystem services to sustain agriculture & agroforestry at the landscape scale
- Theme 8: Mobilizing Agricultural Biodiversity for Food Security & Resilience
 - Identification & ex-situ conservation of tree genetic resources



III. Realize the potential of forests, trees & their genetic resources to mitigate & adapt to climate change

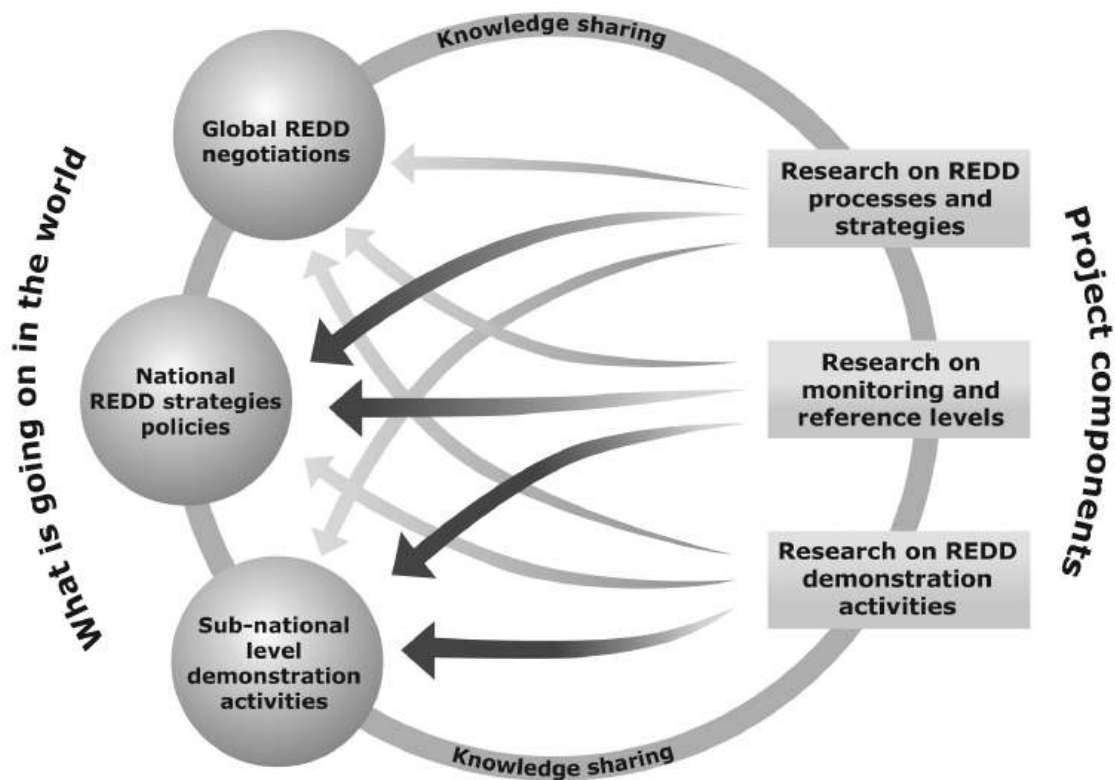
- Research Themes:
 - Develop methods to measure, monitor and reduce forest & agroforest loss and degradation
 - Develop & identify techniques, policies & “best bets” for governance for the equitable implementation of REDD+
 - Develop methods and techniques to reduce vulnerability of forests & agroforest systems to climate change



Illustrative outcomes

- Improved REDD+ policies & implementation contributing to
 - 10% reduction in deforestation from 2005 to 2030
 - Carbon emissions reduced by 0.08–0.16 gigatons a year
 - Improved livelihoods for tens of millions of rural people.
- Tree planting, enhanced with appropriate genetic resources, contributing to
 - Increased tree cover on 50,000 km² of agricultural & degraded lands by 2030
 - 15-25% boost in income of 500 million people
 - Elevated carbon stocks by 5-10 gigatons

Illustrative impact pathway



Illustrative linkages & partners

- Capacity Building: CATIE
- ARIs: e.g., University of Life Sciences Oslo
- NARS: e.g., Indonesian Center for Environmental Law
- International agencies: e.g., World Bank – FCPF, UN REDD



Example links with other thematic work areas

- Theme 7: Climate Change & Agriculture
 - Collaborate on research methods for vulnerability assessment
 - Collaboration on outreach to climate change policy arenas.





Other elements of a forest & trees program

- Gender research -- cross-cutting. Women as:
 - Forest managers
 - Harvesters and producers of forest and tree goods
 - Marketers
- Tenure
- Capacity building needs assessments:
 - For research (NARS, ARIS & networks)
 - To implement research findings: from government agencies to local stake holders and communities

What is new?

MP6 provides a platform for:

- Integrating research:
 - Spanning landscapes, from trees on farms to relatively undisturbed forests
 - Spanning levels of analysis, from species-level genetic diversity to global policy
- Responding to new & growing challenges
 - Increasing competition for forest land to produce food, energy & fiber
- Building on new opportunities to benefit the rural & forest poor, & protect natural resources & biodiversity
 - REDD++ as a livelihood option
 - Forest management as a climate adaptation & mitigation option
 - Payment for ecosystem services

Forest & Trees Thematic Work Area Roadmap

- May: preparation of 12-page concept document
- June – July: consultations with stakeholders & partners
- August: planning workshop
- September: thematic work area proposal finished



What the CGIAR brings to the table:

- Multidisciplinary expertise in socioeconomics, policy, & biophysical sciences
- Global comparative perspective
- Integrate understanding of forests, forest margins, forest-agriculture mosaics, & trees on farms
- Convene other advanced research institutes to address key questions (e.g., on climate change modeling)
- Extensive network of partners & other stakeholders



Environment for People - Policy for People - Food for People

